

RECAP OF FLOOD EVENT OF 28 June, 2006

FROM: Bucks County Amateur Radio Emergency Service – (BCARES)
Harris Stein, NY3H Emergency Coordinator

TO: BCARES Membership; Bucks County Emergency Management Agency (BCEMA);
Lower Bucks Chapter-American Red Cross; American Radio Relay League (ARRL);
General Press Release

(time given in local hours)

On the afternoon of 27 June, 2006, the BCARES EC was notified by BCEMA that Bucks County would activate its Emergency Operations Center (EOC) on 28 June at 0500 Hrs (local) and was requesting ARES/RACES participation. Amateur Radio operator assistance was requested and BCARES was to be prepared for deployment due to a predicted severe weather event. National Weather Service was predicting additional heavy rain adding to days of moderate rainfall. This prediction, coupled with the release of water from reservoirs in Pennsylvania and New York could possibly affect all communities in lower Pennsylvania. BCEMA, in preparation for potential flooding, requested BCARES volunteers to support and provide emergency communications. Personnel were requested to be available for a worst case scenario and a long term event.

While traveling in from NYC, word was disseminated from the EC to key BCARES people to prepare and make announcements on local VHF repeaters. Alert emails were sent to BCARES members. Cell phone call-up notification was given along with postings on our website. BCARES conducted an Emergency Information Net on the K3DN repeater for the purpose of alerting the membership as to the BCARES activation and assignment of operators to certain know staffing needs as well as instructing available operators to check into a resource net which would be activated by 0500 Hrs on the 28th. Twenty four BCARES members checked into a special Tuesday night net at 2100 Hrs. Initial staffing was assigned as follows: N3HBT would become the Net Control Station (NCS) for our resources net on K3DN's repeater, compiling a list of names and times of availability of BCARES members. The initial staffing for BCEMA (Bucks EOC) would be KA3KVU – RACES Radio Officer and NY3H – BCARES Emergency Coordinator. All additional operations would be staffed at the direction of BCEMA Director Dougherty through either the EC or RO at the Bucks EOC - KB3BUX. Tactical Net Operations from Bucks EOC would be carried on the W3BXW repeater and UHF repeaters if needed.

Operations come on line: Amateur radio operators traveling local area streets and highways were very active initially in passing along road condition and traffic reports from 0515 Hrs. Reports were radioed in to our resources NCS which then passed reports to Bucks EOC. This information was invaluable as Police and Public Works personnel had their hands full while extremely heavy rains continued to fall, hampering their ability to relay information on travel conditions and road closures to BCEMA.

By 0700 Hrs, the BCARES team of KB3LCT and K3JQH were assigned to staff the Lower Bucks County Chapter of American Red Cross (LBC ARC) and to establish an operational communication link for the Chapter – Red Cross EOC. Their EOC was fully operational by 0800 Hrs. with WA3YSU –Chapter Disaster Coordinator, first signing on at the Chapter.

Around 0700 Hrs N3TZW, BCARES Upper Bucks Assistant Emergency Coordinator (AEC) was en route to establish an operational communications link for Nockamixon Township as local flooding had already caused major problems especially with two apartment complexes. Additional resources were needed in Upper Bucks prompting N3EXA to be deployed to Perkasio EMA by 0730 Hrs. With conditions deteriorating, two apartment complexes were evacuated. A shelter operation was established for residence at 1st United Methodist Church, requiring further staffing by N3QGO. The shelter was staffed by 0900 Hrs. This shelter operation was later moved during the day to a Red Cross staffed shelter at Palisades High School. N3QGO was re-deployed to the Palisades shelter. Unofficial word also came in late morning of a shelter operating in Upper Bucks at St. Paul's Church in Sellersville. This operation was not staffed by BCARES and was never confirmed as an operating shelter by local officials.

Automatic Position Reporting System (APRS) digital operations were established around 1000 Hrs. at BCEMA to support possible mobile BCARES Rover Units. Bucks EOC also used APRS to track deploying operators with APRS capability without adding additional voice communications to the increasing volume of net traffic handling generated by the evolving event. WI3Z set up the APRS digital operation at Bucks EOC using a hard wired internet connection.

By 1030 Hrs, Bucks County EMA Director Dougherty requested eyes on the ground along Neshaminy Creek at Maple Avenue in Langhorne as metered data available through the internet did not seem to be accurate at that location. BCARES deployed N3JHR as Rover 1 which would be located in Langhorne and monitor conditions for the better part of the day. He continued to take measurements every twenty minutes which were relayed to the Director. This proved to be invaluable information for BCEMA in determining whether additional resources would be needed or should be withheld from the usual flood prone community areas along the Creek.

Additional Operations: Falls Township EOC staffed by KB3MCW; Buckingham Township established an EOC, with no staffing requested; Yardley EOC was established at Yardley Fire Company. KB3GRK was deployed, establishing communications. This link was critical to all stake-holders as cell phone, County and Red Cross radio communication are usually less than optimal. It is known that communication links generally are never reliable along the Delaware River and that Amateur Radio played a critical roll in establishing reliable communication between Yardley area units, BCEMA and Red Cross operations.

Lower Bucks County Chapter - American Red Cross established a shelter operation in Yardley first at Pennswood School but due to mechanical problems with the air conditioning system, had to abandon the site. A complete teardown was accomplished and a new shelter operation was established by 1200 Hrs at William Penn Middle School BCARES, staffed by KB3ANO, moved when the shelter operation was relocated.

Yardley EMA established additional operations including a mobile unit - Yardley Command Post and Yardley Borough Hall were to deal with the Delaware's estimated cresting still a few hours away. BCARES staffed all five operational locations with operators for the better part of the entire week.

Around 1300 Hrs, Rover 2 - WI3Z headed out from BCEMA in Ivyland to photograph conditions along the upper Delaware River starting in Riegelsville. Weaving his way along back roads, WI3Z completed the trip in Tinicum Township. Pictures were viewed back at BCEMA by 1530 Hrs., detailing very high water marks and community damage.

Word of a breach of the canal was reported in Yardley prompting BCEMA to request photos as well. KB3GRK with Yardley mobile Command Post photographed the breach, emailing digital images back to BCEMA for assessment.

As day one ended, BCARES coordinated with BCEMA, Red Cross EOC and Yardley Shelter, all Yardley operations, Nockamixon EOC and Palisades Shelter, staffing coverage for that night as well as day two, 29 June, 2006. BCARES staffing became a challenge as most operations were six hour shifts but in some cases like shelter operations, staffing went on a 12 hour rotation.

Day two started with the acknowledgement that the worst of the flooding was over and flood waters were slowly beginning to recede. It was clear to BCEMA that this would be a long term event as clean-up, assessment and shelter operations would continue for some time. Only Nockamixon EOC and Palisades Shelter operations ended within the next few days. Day three, LBC ARC established an additional operation, a supply distribution Center in Yardley Borough which required additional BCARES staffing.

By 30 June, BCEMA requested additional help for Damage Assessment (DA) from BCARES for Saturday 1 July. BCARES supplied operators for five DA teams traveling about the county to assess and record the damage for PEMA and FEMA. BCARES played a critical part in communication as a few of the DA teams were unable to reliably communicate with BCEMA except through utilizing Amateur Radio UHF and VHF repeater links. Late Saturday brought an end to all BCEMA operations which ended BCARES communication support as well. LBC ARC continued operations requiring BCARES staffing for their EOC, Yardley Distribution Center and William Penn School Shelter. By 1400 Hrs on 5 July, one week after the event started, BCARES EC and Lower Bucks Red Cross jointly decided to end all further flood operations.

The support by BCARES of the Bucks County Emergency Management Agency and Lower Bucks Chapter of the American Red Cross operations proved once again that Amateur Radio is a reliable, viable and needed resource in time of disaster. This flood event required much from the Amateur Radio community and BCARES responded with very impressive numbers as stated below. These numbers underscore BCARES and Amateur Radio as a “Can Do” resource. When all else fails...Amateur Radio is ready to support and gets the message through.

I would like to personally thank Bill Ferguson WA3BXW and Warminster ARC – K3DN for the long term use of their repeater assets. Thanks also to our neighbors for offering support: Mercer Co NJ ARES EC KB3EGI; DelCo. PA ARES W4RFJ; SNJ ARES - K3GW; Hunterdon Co NJ ARES – WA3AZE; Sussex Co. NJ ARES WB2YIP; NJ ARES KC2OXG; CT ARES – AB1CR; Chester Co. ARES – N3AO, W3QA, KB3IGL and to District 1 DEC W3AHR and EPA PIO WA3PZO.

Finally, a special thanks to the N3RAY, Lower Bucks Assistant Emergency Coordinator, for taking over in my absence on 1 July and to all the BCARES members and participating operators for their long hours of service and dedication during this event. **BRAVO TO:** AA3AI; K1RJS; K3FKW; **K3JQH**; KA3VKU; KA3YCG; **KB3ANO**; **KB3GJT**; KB3GRK; KB3HRP; KB3IGL; KB3LCB; **KB3LCT**; **KB3MCW**; KB3MTW; KB3MUZ; N3EXA; N3FGG; N3FKR; N3GNW; **N3HBT**; **N3IAS**; **N3JHR**; N3KKU; **N3QGO**; **N3RAY**; N3RJH; N3SOQ; **N3TMP**; **N3TZW**; N3VJM; N3VSS; N3YVH; **NY3H**; W3GAD; W3ICC; W3MJP; WA3QVU; WA3YSU; WA4YWM; WB3BKW; **WI3Z**; **WW3Y**. (Bold type designated more than 24 hours of BCARES service)

BCARES Facts from this flood event.

- 7 days of continuous operation
- 43 Amateur Radio Operators participated
- 3 Shelter Operations staffed
- 6 EOC Operations staffed
- 3 Additional sites staffed
- 3 Rover Units Utilized
- 5 BCARES members assisted with Damage Assessment
- 864 Total BCARES man-hours expended
- 2,114 miles driven by BCARES operators
- \$ 71,609 of personally owned amateur equipment Used (not including repeaters)
- \$ 866 of non-reimbursed personal cost spent by operators

Respectfully submitted by:
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